

Agriculture is a primary activity. It includes growing crops, fruits, vegetables, flowers and rearing of livestock. In the world, 50 per cent of persons are engaged in agricultural activity. Two-thirds of India's population is still dependent on agriculture.

Note – The land on which the crops are grown is known as arable land

Important Term

Agriculture – The science and art of cultivation on the soil, raising crops and rearing livestock. It is also called farming

Sericulture – Commercial rearing of silk worms. It may supplement the income of the farmer

Viticulture – Cultivation of grapes

Pisciculture – Breeding of fish in specially constructed tanks and ponds

Horticulture – Horticulture Growing vegetables, flowers and fruits for commercial use.

Olericulture – Study of vegetable science

Green Revolution – It stands for a major technological breakthrough in India based on (i) improved seeds of high yielding varieties, (ii) adequate and assured supply of water for irrigation, and (iii) increased and appropriate application of chemical fertilizers for increasing agricultural production

White Revolution – It stands for remarkable increase in milk production

Blue Revolution – It refers to big rise in catching of fresh water and marine fish

Yellow Revolution – It refers to remarkably steady and assured supply of poultry products

Pink Revolution – It refers to a considerable rise in the production of quantity of apples particularly in the states of Himachal Pradesh and J&K

Black Revolution – Petroleum Production

Brown Revolution – Leather/non-conventional(India)/Cocoa production

Golden Fibre Revolution – Jute Production

Golden Revolution – Fruits/Overall Horticulture development/Honey Production

Grey Revolution – Fertilizer

Red Revolution – Meat & Tomato Production

Round Revolution – Potato

Silver Fiber Revolution – Cotton

Silver Revolution – Egg/Poultry Production

Evergreen Revolution – Overall development of Agriculture

Collected by

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Soils of India: Six Different Types of Soils Found in India are as follows:

Soil is our prime natural and economic resource. Soils in India differ in composition and structure.

1. Alluvial Soils:

largest and the most important soil group of India

These are formed by the deposition of sediments by rivers.

They are rich in humus and very fertile.

They are found in Great Northern plain, lower valleys of Narmada and Tapi and Northern Gujarat.

These soils are renewed every year.

Influence on Agriculture: Alluvial soil is very productive. Abundant of wheat, sugarcane, oilseeds, pulses, rice and jute is grown on this soil.

2. Black Soils:

These soils are made up of volcanic rocks and lava-flow.

It is concentrated over Deccan Lava Tract which includes parts of Maharashtra, Chhattisgarh, Madhya Pradesh, Gujarat, Andhra Pradesh and Tamil Nadu.

It consists of Lime, Iron, Magnesium and also Potash but lacks in Phosphorus, Nitrogen and Organic matter.

Influence on Agriculture: They retain moisture for a long period. These soils are fertile and suitable for the production of cotton, sugarcane, wheat and groundnut.

3. Red Soils:

These are derived from weathering of ancient metamorphic rocks of Deccan Plateau.

Its redness is due to iron composition. When iron content is lower it is yellow or brown.

They cover almost the whole of Tamil Nadu, Andhra Pradesh, Chhattisgarh, Karnataka, Maharashtra and parts of Orissa.

Influence on Agriculture: They are relatively less fertile, but are capable of growing good crops with the help of irrigation and fertilizers. Rice, wheat, millet, gram, pulses, sugarcane, oilseeds and cotton are cultivated on these Soils.

4. Laterite Soils:

These soils are formed due to intense leaching and are well developed on the summits of hills and uplands.

They are commonly found in Kerala, Tamil Nadu, Maharashtra, Chhattisgarh and hilly areas of Orissa and Assam.

Influence on Agriculture: These soils are infertile as they cannot retain moisture. They are unsuitable for agriculture. Some plants like the cashew can thrive on lateritic soils. Root crops like tapioca also do reasonably well on these soils

5. Mountain Soils:

These soils are formed as a result of the accumulation of organic matter derived from forest growth.

They are found in Himalayan region and vary in different regions according to altitude.

Tea is grown in those areas which receive sufficient rainfall.

Influence on Agriculture: They are fertile and suitable for cultivation of potatoes, rice, wheat, fruits and tea.

6. Desert Soils:

In the desert regions of Rajasthan, soils are not well developed.

As evaporation is in excess of rainfall, the soil has a high salt content and saline layer forms a hard crust.

These soils are generally sandy and deficient in organic matter.

Influence on Agriculture: These soils are not suitable for agriculture due to scanty rainfall; however, agriculture can be carried on with the help of irrigation. Bajra, wheat, groundnut can be grown on these soils.

Points to remember	Type of Soil
<i>The soil most common in Indo-gangetic plains</i>	Alluvial
<i>The soil which swells when wet and develops cracks when dry</i>	Black
<i>The soil which owes its colour to oxides of iron</i>	Laterite
<i>The soil which requires least use of fertilisers</i>	Alluvial
<i>The soil which requires least tilling</i>	Black
<i>The kind of soil which is treated with gypsum to make it suitable for cropping</i>	Alkaline soil
<i>The soil which is poor in soluble salts</i>	Laterite
<i>The soil which is rich in surface accumulation of organic matter</i>	Peaty soil
<i>The soil which is most suitable for cultivation of cotton</i>	Black

CROPPING PATTERN

Rabi: Rabi crops are also known as winter crops.

Sown – October to December and

Harvested – April to June.

Main Crop – Wheat, barley, pea, gram and mustard.

Note – Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Uttar Pradesh are the important producers of rabi crops.

Kharif: Kharif crops are also known as summer crops.

Sown – The beginning of monsoon

Harvested – September-October.

Main Crop – Paddy, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut and soyabean crops.

Note – Assam, West Bengal, coastal regions of Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Uttar Pradesh and Bihar are important rice growing states.

Note – In Assam, West Bengal and Orissa, three crops of paddy are grown in a year. These are called Aus, Aman and Boro.

Zaid: The zaid season falls in between the rabi and kharif seasons.

Main Crop – Watermelon, muskmelon, cucumber, vegetables and fodder crops

Note – Sugarcane is planted in this season but takes almost a year to grow.

Based on climatic condition

1) *Tropical crop* : Coconut, sugarcane

2) *Sub-tropical crop* : Rice, cotton

3) *Temperate crop* : Wheat, barley

4) *Polar crop* : All pines, pasture grasses

Farm System Agriculture

Inputs – seeds, fertilisers, machinery and labour.

Operation – Ploughing, sowing, irrigation, weeding and harvesting.

Output – crops, wool, dairy and poultry products.

Farming Type

Farming can be classified into two main types.

1.Subsistence Farming

Intensive Subsistence

Primitive Subsistence

Shifting Cultivation

Nomadic Herding

2.Commercial Farming.

Commercial Frain Farming.

Mixed Farming

Plantation Agriculture.

1. Subsistence Farming –

This type of farming is practised to meet the needs of the farmer's family.

Traditionally, low levels of technology and household labour are used to produce on small output.

Subsistence farming can be further classified as *Intensive Subsistence* and *Primitive Subsistence Farming*.

In Intensive Subsistence Agriculture –

The farmer cultivates a small plot of land using simple tools and more labour.

Climate with large number of days with sunshine and fertile soils permit growing of more than one crop annually on the same plot.

Rice is the main crop.

Other crops include wheat, maize, pulses and oilseeds.

Primitive Subsistence – agriculture includes *shifting cultivation* and *nomadic herding*.

Shifting Cultivation

These are the areas of heavy rainfall and quick regeneration of vegetation.

A plot of land is cleared by felling the trees and burning them.

The ashes are then mixed with the soil and crops like maize, yam, potatoes and cassava are grown. After the soil loses its fertility, the land is abandoned and the cultivator moves to a new plot.

Shifting cultivation is also known as ‘slash and burn’ agriculture.

Note – Shifting cultivation is known by different names in different parts of the world Jhumming – North-East India Milpa - Mexico Roca – Brazil. Ladang – Malaysia

Nomadic Herding

Practised in the semi-arid and arid regions of Sahara, Central Asia and some parts of India, like Rajasthan and Jammu and Kashmir.

In this type of farming, herdsmen move from place to place with their animals for fodder and water, along defined routes.

This type of movement arises in response to climatic constraints and terrain. Sheep, camel, yak and goats are most commonly reared.

They provide milk, meat, wool, hides and other products to the herders and their families.

2. Commercial Farming –

In commercial farming crops are grown and animals are reared for sale in market.

The area cultivated and the amount of capital used is large.

Most of the work is done by machines.

Commercial farming includes *Commercial Grain Farming*, *Mixed Farming* and *Plantation Agriculture*.

Commercial Grain Farming –

Crops are grown for commercial purpose.

Wheat and maize are common commercially grown grains.

Severe winters restrict the growing season and only a single crop can be grown.

Mixed Farming –

It is a situation in which both raising crops and rearing animals are carried on simultaneously.

Here farmers engaged in mixed farming are economically better off than others.

Plantations –

It is an estate where a single cash crop is grown for sale.

This type of agriculture involves growing and processing of a single cash crop purely meant for sale. Tea, coffee, rubber, banana and spices are all examples of plantation crops.

Note – Organic Farming In this type of farming, organic manure and natural pesticides are used instead of chemicals. No genetic modification is done to increase the yield of the crop.

MAJOR CROPS OF INDIA

Food grains – Crops that are used for human consumption

Main Crop – Rice, Wheat, Maize, Millets, Pulses and Oil seeds

Commercial Crops – Crops which are grown for sale either in raw form or in semi-processed form

Main Crop – Cotton, Jute, Sugarcane, Tobacco and Oilseeds

Plantation Crops – Crops Which are grown on Plantations covering large estates

Main Crop – Tea, Coffee, Coconut and Rubber

Horticulture – Sections of agriculture in which Fruits and Vegetables are grown

Main Crop – Fruits and Vegetables

Let us discuss the Important Food grains

Rice – Kharif or Summer Crop

Temperature Require: Rice requires hot and humid conditions. The temperature should be fairly high i.e. 24°C mean monthly temperature with average temperature of 22°C to 32°C

Rainfall: Rainfall ranging between 150-300 cm is suitable for its growth in areas of Punjab, Haryana and Western Uttar Pradesh where rainfall is less than 100 cm, rice is cultivated with the help of irrigation.

Soil: Rice is grown in varied soil conditions but deep clayey and loamy soil provides the ideal conditions. Rice is primarily grown in plain areas. It is also grown below sea level at Kuttanad (Kerala), hill terraces of north eastern part of India and valleys of Kashmir

Note – China leads in the production of rice followed by India, Japan, Sri Lanka and Egypt.

Wheat – Rabi or Winter Crop

Temperature Require: It is primarily a crop of mid-latitude grassland. It requires cool climate. The ideal temperature is between 10°C to 15°C at the time of sowing and 21°C to 26°C at the time of ripening and harvesting.

Rainfall: Wheat thrives well in areas receiving annual rainfall of about 75cm. Annual rainfall of about 100cm is the upper limit for wheat cultivation

Soil: Although wheat can be grown in a variety of soils but well drained fertile loamy and clayey loamy soil is best suited for wheat cultivation. Plain areas are very well suited for wheat production.

Note – Wheat is grown extensively in USA, Canada, Argentina, Russia, Ukraine, Australia and India. In India it is grown in winter.

Millets(Jawar, Bajra): Millets are short duration warm weather crops – Kharif Crop

Temperature Require: These crops are grown where the temperature is high which ranges between 27°C to 32°C.

Rainfall: As mentioned earlier that millets are 'dry land crops', therefore, rainfall ranging from 50 to 100cm is ideal for their cultivation.

Soil: Millets are less sensitive to soil deficiencies. They can be grown in inferior alluvial or loamy soil

Pulses-

Note – Gram: It is the most important of all the pulses. It accounts for about 37% of the production and about 30% of the total area of pulses in India

Temperature Require : It is grown in a wide range of climatic condition. Mild cool and comparatively dry climate with 20°C-25°C temperature.

Rainfall: 40-45 cm rainfall is favourable for gram cultivation.

Soil: It grows well on loamy soils

Other Important

Maize: Maize requires moderate temperature, rainfall and lots of sunshine. It needs well-drained fertile soils.

Note – Maize is grown in North America, Brazil, China, Russia, Canada, India, and Mexico.

Cotton: Cotton requires high temperature, light rainfall, two hundred and ten frost-free days and bright sunshine for its growth. It grows best on black and alluvial soils. It is one of the main raw materials for the cotton textile industry.

Note – China, USA, India, Pakistan, Brazil and Egypt are the leading producers of cotton

Jute: Jute was also known as the 'Golden Fibre'. It grows well on alluvial soil and requires high temperature, heavy rainfall and humid climate. This crop is grown in the tropical areas.

Note – India and Bangladesh are the leading producers of jute.

Coffee: Coffee requires warm and wet climate and well drained loamy soil. Hill slopes are more suitable for growth of this crop.

Note – Brazil is the leading producer followed by Columbia and India.

Tea: Tea is a beverage crop grown on plantations. This requires cool climate and well distributed high rainfall throughout the year for the growth of its tender leaves It needs well-drained loamy soils and gentle slopes. Labour in large number is required to pick the leaves.

Note – Kenya, India, China, Sri Lanka produce the best quality tea in the world.

Note – Spice producing areas in India are Kerala, Karnataka, and Tamil Nadu.

Note – Tobacco producing states are Gujarat, Uttar Pradesh, Andhra Pradesh and Karnataka.

Point to remember	Crop
<i>The crop which requires water-logging for its cultivation</i>	Rice
<i>The crop best suited in areas where rain falls only for two months</i>	Pulses
<i>The ideal crop for areas with rainfall above 200 cm and sloping hills</i>	Tea
<i>The crop which requires a large amount of rainfall and no standing water</i>	Tea
<i>The crop which is sown in largest area in India</i>	Rice (43.9 million hectares as per 2013-14 estimates)
<i>The crop whose production is the largest in India</i>	Sugarcane (348.4 million tonnes as per 2013-14 estimates)
<i>The cereal crop whose production is the largest in India</i>	Rice (106.3 million tonnes as per 2013-14 estimates)
<i>The agricultural produce which has the highest percentage share of imports</i>	Edible Oil (about 68% of imports of food and allied products)
<i>The agricultural produce which has the highest percentage share of exports</i>	Rice

Crops : India's Rank in the World

<i>Millets, Lemon & limes, Bananas, Ginger, Mangoes, Papayas, Jute, Castor Oil seed, Safflower oil seed</i>	First
<i>Sugarcane, Wheat, Onion, Potatoes, Garlic, Rice, Tea, Cottonseed</i>	Second

Food Security

In order to ensure food security to all sections of society, the government has carefully designed a national food security system. It has two components:

Buffer Stock: Once the government procures food grains through FCI (Food Corporation of India), buffer stock is maintained at various locations. This stock is utilised in case of food shortage at any place. This stock is also utilised in case of natural disasters; like flood and drought.

Public Distribution System: PDS is a programme which provides food grains and other essential commodities at subsidised prices to poor people in rural and urban areas. A person needs to get a ration card made to avail the benefits of PDS. Separate cards are made for BPL (Below Poverty Line) and APL (Above Poverty Line) families. The PDS is also fed by the FCI.

Importance of agriculture in Indian economy.

India is an agricultural country.

Nearly two-thirds of its population depends directly on agriculture for its livelihood.

Agriculture is the main stay of India's economy.

It accounts for 26% of the gross domestic product.

It ensures food security for the country and produces several raw materials for industries.

Agricultural development is therefore, a precondition of our national prosperity.

Additional Important Byte

Age at which white leghorn starts laying eggs – 5-6 months

Apex body of agricultural marketing – NAFED

ASPEE is related to – Sprayer

At which temperature milk is stored – 4°C

Critical Irrigation stage for Wheat – CRI

Crop intensity of wheat paddy – 200%

Dapog Method – Nursery preparation

Depth of shallow tillage according to the CRIDA – 5-6 cm

Disc angle of disc plough – 42-45°

Disc harrow is involved in which kind of tillage – Secondary

Farmers not classified on the basis of price, area – Ranching

High pressure Sprayer – Gear pump

Jwala is the variety of – Chilli

Minimum Land required for loan – 2000 ha

Minimum level of Water erosion – Splash irrigation

Minimum loss of water – Drip irrigation

Minor irrigation area – 2000 ha

Mulching is – Conservative tillage

Percentage of clay in sandy loam – 0-20%

Plantation system having one tree at the center – Quincunx

PLP initiated by – NABARD, GOI, RRB

Power tiller – Rotatory implement

Pusa kranti is the variety of – Brinjal

Reason for Seed-lessness in fruit – Embryo Abortion

Red label on fertilizer box indicates – Extremely toxic

Rinderpest is not a disease of – Poultry

Root-Rot disease related to – Groundnut

Rotavator is involved in which type of tillage – Secondary tillage

Seedless variety of Grapes – Thompson

Size of coarse sand particle – 2mm-0.2mm

Size of Mould board plough determines – Width of Cut

Soil with pH less than 3.5 – Ultra acidic soil

Soyabean root (which type) – Deeply-rooted

Tractor working hours – 10000 hours

Vaishali is the variety of – Tomato

Water conservation is studied under – Soil science

Water loss in air least in – Drip irrigation

Which is not a micro nutrient – Ca

Why puddling is done – Conserving moisture by breaking by breaking an impermeable layer

Zero tillage means – Neither primary nor secondary

Economic Activities

This transformation from a plant to a finished product involves three types of economic activities. These are

- 1) *Primary* – Primary activities include all those connected with extraction and production of natural resources or raw materials from the Earth. Example – Agriculture, Fishing and Gathering
- 2) *Secondary* – Secondary activities involves the transformation of raw materials into goods, Example – Manufacturing of steel, Baking of bread and Weaving of cloth
- 3) *Tertiary Activities* – Provide support to the primary and secondary sectors through services. Example – Transport, trade, banking, insurance and advertising

Land Use Categories Land

Land Use Categories Land-use records are maintained by land revenue department. The land use categories add up to reporting area, which is somewhat different from the geographical area. The Survey of India is responsible for measuring geographical area of administrative units in India. Have you ever used a map prepared by Survey of India? The difference between the two concepts are that while the former changes somewhat depending on the estimates of the land revenue records, the latter does not change and stays fixed as per Survey of India measurements

The land-use categories as maintained in the Land Revenue Records are as follows :

Forests : It is important to note that area under actual forest cover is different from area classified as forest. The latter is the area which the Government has identified and demarcated for forest growth. The land revenue records are consistent with the latter definition. Thus, there may be an increase in this category without any increase in the actual forest cover.

Land put to Non-agricultural Uses : Land under settlements (rural and urban), infrastructure (roads, canals, etc.), industries, shops, etc. are included in this category. An expansion in the secondary and tertiary activities would lead to an increase in this category of land-use.

Barren and Wastelands : The land which may be classified as a wasteland such as barren hilly terrains, desert lands, ravines, etc. normally cannot be brought under cultivation with the available technology.

Area under Permanent Pastures and Grazing Lands : Most of this type land is owned by the village 'Panchayat' or the Government. Only a small proportion of this land is privately owned. The land owned by the village panchayat comes under 'Common Property Resources'.

Area under Miscellaneous Tree Crops and Groves(Not included is Net sown Area) : The land under orchards and fruit trees are included in this category. Much of this land is privately owned.

Culturable Waste-Land : Any land which is left fallow (uncultivated) for more than five years is included in this category. It can be brought under cultivation after improving it through reclamation practices.

Current Fallow : This is the land which is left without cultivation for one or less than one agricultural year. Fallowing is a cultural practice adopted for giving the land rest. The land recoups the lost fertility through natural processes.

Fallow other than Current Fallow : This is also a cultivable land which is left uncultivated for more than a year but less than five years. If the land is left uncultivated for more than five years, it would be categorised as culturable wasteland.

Net Area Sown : The physical extent of land on which crops are sown and harvested is known as net sown area.

Varieties of Different Important Crops

Rice : (First introduced dwarf variety into India), IR-8, Jaya (Blast Resistant), Padma, Mashuri, Kakatiya, Pusa Basmati, Pusa Jaldidan, Lunisree, Ratna, TKM-6 (Stem borer resistant), Kataribogh (Tungro resistant), ADT-27 (indica x japonica), Santchousong (High protein content), Dee-Gee-Woo-Gen, Bala (Drought resistant), IR-20 (Resistant to Blast, BLB, stemborer, leafhopper).

Wheat :

Introduction from Mexico: Lerma Rojo and sonara-64.

Single gene dwarf varieties : Safed lerma, Sharbati sonara, pusa Lerma, Chotu lerma.

Double gene dwarf varieties: Shera, Arjun, Janak.

Triple gene dwarf varieties: Heera, Moti.

HD series, Kundan, C-306 (drought resistant).

Chickpea : Pusa 256 PBG-1 203, Pusa 209: Gaurav ICCC-32, Ajay.

Pigeonpea : UPAS-120 (short duration), ICPH-8 (First Hybrid), (Arhar) Pusa 33, Pusa Agati, ICPL 37. Hira, Mukta, Bahar, Prabat. SBH-8. Sugarcane: Noble Canes: CO-419, Co-997

Soybean : Bragg, Lee Clark-63, Shilajeet, Pusa 16, 20, 24, PK-327

Tomato : Pusa Sheetal, Pusa-120, Pusa Early Dwarf, Pusa Ruby, Margolose, Sioux, Pusa Gauray, Best of All.

Mango :

Malika (neelam x dasheri), Amrapali (dasheri x neelam)

Ratna (neelam x alphonso)

Bannana :

Poovan (larplur, Chakrakeli), Basrai, Champa

Hill Bananas : Sirumali, virupakshi

Culinary varieties : Monthan, Gross Mitchell, Mindoli Robusta Rasthali

Rose: Chitra, Dr. B. P. Pal, Priyadarshini, Nehru Ceremony, Jawhar, Abisarika, Banjara, Randhawa.

Califlower: Pusa Deepali, Pusa synthetic, Pusa Katki, Early Snowball, Kanwari, Early, Patna, Patna Main crop, Snowball-16, Sutton's Snowball Japanese improved, Dania, Aghani, Poosi.

Top producing state

Apple – Jammu & Kashmir Largest

Banana – Tamil

Cashew nut – Maharashtra

Citrus, Lemon, Mosambi – Pradesh

Coarse Cereal – Karnataka, Rajasthan

Cocoa – Kerala

Coconut – Tamil Nadu

Cotton – Gujarat

Grapes – Maharashtra

Horticulture Products – West Bengal

Jute – West Bengal

Litchi – Bihar

Maize – Andhra Pradesh

Mango – Uttar Pradesh & Andhra Pradesh

Oilseeds – Gujarat

Orange – Punjab

Rapeseed & Mustard – Rajasthan

Rice – West Bengal

Soyabean – Madhya Pradesh

Sugar – Maharashtra

Sugarcane – Uttar Pradesh

Sunflower – Karnataka

Total Food Grains – Uttar Pradesh

Total Fruits – Andhra Pradesh Largest

Total Spices – Andhra Pradesh Largest

Total Vegetables – West Bengal

Wheat – Uttar Pradesh

Fruit types with Example

Berries : Grapes, Guava, Phalsa, Tomato, Brinjal, Chitiles

Drupe : Mango, Peach, Plum, Cherry, Apricot

Hesperidum : Citrus4. Amphisarca : Wood apple, Bael

Balusta : Pomegranate

Pome (false fruit) : Apple, Pear

Pepo : Cucurbits

Single seeded berry : Dates

IMPORTANT key points to remember

U.P has highest total fertilizer consumption

Crop under highest irrigation is 1st-wheat, 2nd-rice.

Irrigated area to Net sown area highest in Sugarcane followed by Wheat

Largest imported fertilizer is potash.

26 % of Indian population are under below poverty line

State having maximum area under irrigation – Punjab

Major source of irrigation in India – Canal

Maximum area under fruit crops – Mango

Maximum production under fruit crops – Banana

First agricultural census in India conducted in 1970

As per National forest policy, for ecological balance, the forests cover should be on 1/3rd area (i.e. 33 %) of the country

Famous name of crops

National fruit of India : Mango

Adams fig : Banana

Apple of paradise : Banana

Autumn queen : Chrysanthemum

Bio energy plant : Jatropha

Brown gold : Dead pupae of silkworm

Butter fruit : Avocado

China's miracle fruit : Kiwi fruit

Drosophila of crop plants : Maize

Egg plant : Brinjal

Famine reserves : Millets

Food of god : Cocoa

Glory of East : Chrysanthemum

King of arid and semi fruits : Ber

King of cereals : Wheat

King of coarse cereals : Sorghum

King of fodder crops : Berseem

King of fruits : Mango

King of oilseeds : Mustard

King of spices : Black Pepper

King of temperate fruits : Apple

King of weeds : Congress grass

Oldest cultivated tropical fruits : Banana

Poor man's food : Pearl millet

Poor man's friend : Potato

Poor man's fruit : Jackfruit, Ber

Poor man's meat : Soybean

Poor man's orange(India) and love of apple (England) : Tomato

Poor man's substitute for ghee : Sesamum

Queen of beverage crop : Tea

Queen of cereals : Maize

Queen of flowers : Rose

Queen of fodder crops : Lucerne

Queen of fruits : Pineapple

Queen of oilseeds : Sesame

Queen of spices : Cardamom

Queen of vegetables : Potato

Small holder's irrigated crop : Oil palm

Tree of heaven : Coconut

Vegetable meat : Cowpea

Wonder crop : Soybean

Wonder tree : Neem

Terms used with associated crops

Curing : Tobacco, Tea

Stripping : Jute

Nipping : Cotton

Wrapping : Sugarcane

Propping : Banana, sugarcane

Trashing : Sugarcane

Dapog seedling : Rice seedling

De-suckering : Tobacco, Banana

De-tasseling : Maize

Pegging : Groundnut

Retting : Jute

Ginning : Cotton

Tapping : Gram

Staking : Tomato

Arrowing : Sugarcane

Rationing : Sugarcane

Tipping : Tea

list of Agricultural Research Centers In India

Central Arid Zone Research Institute(CAZRI) – Rajasthan

Central Food Technological Research Institute (CFTRI) – Mysore

Central Inland Fisheries Research Institute(CIFRI) – West Bengal

Central Institute for Cotton Research (CICR) – Maharashtra

Central Institute for Research on Goats (CIRG) – Uttar Pradesh

Central Institute of Agricultural Engineering (CIAE) – Bhopal

Central Institute of Brackishwater Acquaculture (CIBA) – Chennai

Central Institute of Freshwater Aquaculture (CIFA) – Orissa

Central Plantation Crops Research Institute (CPCRI) – Kerala

Directorate of Maize Research (DMR) – New Delhi

Directorate of Water Management (DWM) – Bhubaneswar

Directorate of Wheat Research(DWR) – Haryana

Indian Agricultural Research Institute(IARI) – New Delhi

Indian Agricultural Statistics Research Institute(IASRI) – New Delhi

Indian Institute of Forest Management (IIFM) – Bhopal

National Academy of Agricultural Research Management (NAARM) – Andra Pradesh

National Botanical Research Institute (NBRI) – Uttar Pradesh

National Bureau of Animal Genetic Resources (NBAGR) – Haryana

National Bureau of Plant Genetic Resources (NBPGR) – New Delhi

National Bureau of Plant Genetic Resources (NBPGR) – New Delhi

National Centre for Agricultural Economics and Policy Research (NCAP) – New Delhi

National Dairy Research Institute (NDRI) – Haryana

National Institute of Agricultural Extension Management (MANAGE) – Hyderabad

National Institute of Agricultural Marketing (NIAM) – Rajasthan

Sugarcane Breeding Institute (SBI) – Tamil Nadu

Quick Review Some Important points

Growing of only one crop on a piece of land year after year is called – Mono Cropping

Growing two or more crops on the same piece of land in one calendar year is called – Multiple cropping

Growing 2 or more crops simultaneously with definite row arrangement is called -Inter cropping

Growing at low or more crops in sequeate on the same piece of land in a farming year – Sequential cropping

Ratio between grass sown area and Net sown area is called – Cropping Intensity

Cropping Intensity can be obtained from the formula – $(\text{Gross Sown Area} / \text{Net sown areas}) \times 100$

Growing of crops in between Kharif and rabbi season is called – Zaid cropping

The slash and burn type of cultivation in the hill treats of North Eastern Region is called – Jhum/ shifting cultivation

Crops which are grown primarily to cover the soil and to reduce the loss of moisture and erosion is called – Cover crop

System of growing together crops of different heights at the same time on the same piece of land is called – Multy storey cropping

Example of Multy storey cropping is – Coconut + Pepper + cocoa + Pineapple

Botanical name of wheat – Triticum aestivum

Protein of wheat is called – Gluten

Bread wheat is scientifically called – Triticum aestivum

Macroni wheat is scientifically called – Triticum durum

Emmer wheat is scientifically called – Triticum dicoccum

A condition of atmosphere at a given place at a given time is called – Weather

A weather condition over a given region during a longest period is called – Climate

All weather phenomena like rain, fog occur in -Troposphere

Wheat, Barley and Oat are the example of – Long day plant

Rice, Sorghum and Maize are the example of – Short day plant

Cotton, Sunflower and Buck wheat are the example of – Neutral plants

Average rainfall in India – 120 cm

Rain bearing clouds is – cumulonimbus, cumulus

A chemical used for cold cloud seeding – Silver iodide

A chemical used for warm cloud seeding – Sodium chloride

Indian Meteorological Organization situated at – New Delhi(earlier Pune)

Agriculture Notes (Part-1)

<http://www.punjabexamportal.com/2015/11/12/agriculture-notes-mcqs-1/>

Multiple Choice Question

Q-1 The Crops which are grown in rainy season are called

- a) Rabi crop
- b) Seasonal crop
- c) Monsoon crop
- d) Kharif crop**

Q-2 Rabi Crops are grown in _____ season

- a) Summer
- b) Spring
- c) Winter**
- d) rainy

Q-3 The Bhoodan-Gramdaan movement was initiated by

- a) Vinoba Bhave**
- b) Mahatma Gandhi
- c) Pandit Nehru
- d) R. C. Reddy

Q-4 Cultivation of coffee is confined to which of the following hills?

- a) Nilgiri**
- b) Aravali
- c) Shivalik
- d) Chhota Nagpur

Q-5 Which Indian state leads in the production of rubber?

- a) Tamil Nadu
- b) Kerala**
- c) Karnataka
- d) Gujarat

Q-6 What part of Total population of India is engaged in agriculture activities:

- a) 1/2
- b) 2/3**
- c) 1/4
- d) 2/5

Q-7 Which Indian state stands first in the production of coffee?

- a) Kerala
- b) Karnataka**
- c) Assam
- d) Gujarat

Q-8 In which type of soil does Maize grow well?

- a) Black
- b) Sandy Soil
- c) Old alluvial**
- d) None of the above

Q-9 Which are the two main beverage crops produce in India ?

- a) Sugar cane and oilseeds
- b) Tea and coffee**
- c) Jowar and bajra
- d) Rice and wheat

Q-10 Which country is the largest producer of oil seeds in the world?

- a) China
- b) India**
- c) U.S.A
- d) Pakistan

Q-11 Which one of the following crops is known as 'Golden Fibre'?

- a) Wheat
- b) Rice**

c) Groundnut

d) Jute

Q-12 Which of the following crops is not a millet?

a) Jowar

b) Maize

c) Ragi

d) Bajra

Q-13 The rearing of silk worms for the production of silk fiber is known as :

a) Sericulture

b) Horticulture

c) Floriculture

d) Agriculture

Q-14 What is Pink Revolution –

a) It refers to big rise in catching of fresh water and marine fish.

b) It stands for remarkable increase in milk production

c) It refers to remarkably steady and assured supply of poultry products.

d) It refers to a considerable rise in the production of quantity of apples

Q-15 Which of the following soil type is most suitable for garlic cultivation ?

a) Loamy sand

b) Sandy loam

c) Loam

d) Clay

Q-16 Which type of soil is best for knolkhol ?

a) Loam

b) Clayey loam

c) Silty clayey loam

d) Clay

Q-17 Which of the following soil type has the highest field capacity ?

a) Loam

b) Silty loam

c) Clayey loam

d) Clay

Q-18 Which among the following is a fibre crop?

a) Rubber

b) Jute

c) Tomato

d) Coffee

Q-19 About 90% of Rubber demand is met by

a) Kerala

b) Karnataka

c) Tamil Nadu

d) Maharashtra

Q-20 Pulses fit well in cropping system as they are—

a) Short duration crops

b) Disease resistant crops

c) Long duration crops

d) Moisture stress resistant crops

Q-21 Wheat is a

a) Cash crop

b) Cereal crop

c) Covered crop

d) None of these

Q-22 Which one of following is not Agro-based industry:

a) Cement Industry

b) Jute Industry

c) Cotton textile Industry

d) Sugar Industry

Q-23 India is the larger producer as well as the consumer of the world?

a) Apple

b) Rice

c) Chickpeas

d) Millets

Q-24 Which of the following oil seed is both a karif and Rabi crop?

a) Groundnut

b) Mustard

c) Sesamum

d) Soyabean

Q-25 Which state is the largest producer of Groundnut?

- a) Uttar Pradesh
- b) Gujarat**
- c) Maharashtra
- d) Andhra Pradesh

Q-26 Growing different crops alternately on the same land is technically called

- a) Crop Alternation
- b) Crop Rotation**
- c) Crop Revolution
- d) Crop Change

Q-27 Moat, Dhekli and Rahat are different

- a) Traditional methods of cultivation
- b) Traditional methods of Weeding
- c) Traditional methods of Seed sowing
- d) Traditional methods of irrigation**

Q-28 In the harvested crop the grain seed is separated from the chaff. This process is called ____ a

- a) Threshing**
- b) Seeding
- c) Ploughing
- d) Weeding

Q-29 Hoe, dao, digging sticks are associated with

- a) Primitive subsistence farming**
- b) Commercial farming
- c) Green Revolution
- d) Horticulture

Q-30 Which of the following is grown in rotation with other crops?

- a) Arhar
- b) Moong**
- c) Sunflower
- d) Groundnut

Q-31 Which of the following description is true for describing 'fertiliser'

- a) Used in large quantity
- b) Organic in nature**

c) Does not cause pollution

d) Produced in factories

Q-32 Rhizobium (a Bacteria) which fixes atmospheric nitrogen are found in nodules growing in

- a) Roots of leguminous plants**
- b) Leaves of leguminous plants
- c) Stem of Leguminous plants
- d) All of the above.

Q-33 Before sowing the seeds, it is necessary to break soil to the size of grains to get better yield. The main tools used for such are

- a) Tractor, Hoe, Seed drill
- b) Bullock, tiller, tractor
- c) Plough, Hoe, Cultivator
- d) Plough, Seed Drill, Tractor**

Q-34 In India which crop is sown on the largest area?

- a) Jowar
- b) wheat
- c) tobacco
- d) rice**

Q-35 The science concerned with vegetable culture is called

- a) floriculture
- b) olericulture**
- c) horticulture
- d) agriculture

Q-36 The science concerned with Cultivation of grapes.

- a) Viticulture**
- b) olericulture
- c) horticulture
- d) agriculture

Q-37 Rock phosphates are used in—

- a) Saline soil
- b) Sodic soil
- c) Acidic soil**
- d) Neutral soil

Q-38 Red soil is poor in which of the following nutrients ?

- a) Phosphorus and Sulphur
- b) Phosphorus and Nitrogen
- c) Nitrogen and Zinc
- d) Nitrogen and Potassium**

Q-39 What is Blue Revolution –

- a) It refers to big rise in catching of fresh water and marine fish.-**
- b) It stands for remarkable increase in milk production
- c) It refers to remarkably steady and assured supply of poultry products.
- d) It refers to a considerable rise in the production of quantity of apples

Q-40 Which type of soil is found near the canal banks ?

- a) Acidic and alkaline
- b) Acidic
- c) Alkaline**
- d) None of these

Q-41 Which one of the following is a Kharif crop?

- a) bajra**
- b) wheat
- c) mustard
- d) barley

Q-42 Which one of the following is a rabi crop?

- a) rice
- b) jowar
- c) cotton
- d) peas**

Q-43 Who is known as the 'Father of White Revolution'?

- a) V Kurien**
- b) MS Swaminathan
- c) JP Narayan
- d) Baba Amte

Q-44 Who was the chief architect of Green Revolution that significantly improved the agricultural yield in the country?

- a) MS Swaminathan**
- b) VR Krishna Aiyar
- c) V Kurien
- d) Jawaharlal Nehru

Q-45 Which soil largest and the most important soil group of India

- a) Alluvial Soils**
- b) Black Soils
- c) Red Soils
- d) Laterite Soils

Q-46 The zaid season falls in between the rabi and kharif seasons.

- a) Watermelon
- b) muskmelon
- c) cucumber
- d) all of above**

Q-47 Which type of farming is practised to meet the needs of the farmer's family.

- a) Subsistence farming**
- b) Mixed Farming
- c) Plantation Agriculture
- d) none of these.

Q-48 Growing of two or more crops simultaneously on the same piece of land is called

- a) mixed cropping**
- b) mixed farming
- c) intercropping
- d) fanning

Q-49. Temperature Require at the time of sowing wheat

- a) 10°C to 15°C**
- b) 21°C to 26°C
- c) 22°C to 32°C
- d) 32°C to 42°C

Q-50 Farm Planning means—

- a) Farm Budgetting
- b) Cropping pattern**

- c) Type of enterprises
- d) None of these

Q-51. Jalpriya is a variety of—

- a) Maize
- b) Jowar
- c) *Paddy*
- d) Barley

Q-52. Sugarcane + Potato is an intercropping system of—

- a) *Autumn season*
- b) Zaid season
- c) Spring season
- d) Rainy season

Q-53 Seed-rate of potato per hectare is—

- a) 25 quintal/hectare
- b) 10 quintal/hectare
- c) 15 quintal/hectare
- d) *40 quintal/hectare*

Q-54. Deficiency symptoms of calcium on plants first appear at—

- a) Lower leaves
- b) Middle leaves
- c) *Terminal leaves*
- d) All leaves

Q-55. Which weedicide is used to kill broad leaf weeds in wheat ?

- a) *2, 4 – D.S.S. (WPSS)*
- b) 2, 4, 5 – T
- c) 2, 4 – DB
- d) None of these

Q-56. Maya is the variety of—

- a) Potato
- b) Gram
- c) Pea
- d) *Mustard*

Q-57. The weed that causes Asthma is—

- a) Hirankhuri

- b) Bathua
- c) *Parthenium*
- d) Krishna Neel

Q-58. Which crop requires maximum amount of nitrogen ?

- a) Potato
- b) Wheat
- c) Barley
- d) *Sugarcane*

Q-59. First dwarf variety of paddy developed in India is

- a) Jaya
- b) Saket-4
- c) *Govind*
- d) Narendra-97

Q-60. Sprinkler irrigation is suitable, where the soil has—

- a) Clayey texture
- b) Loamy texture
- c) Undulating topography
- d) All of these-

Q-61. Endosulphan is also known as

- a) Lindane
- b) *Thiodan*
- c) Aldrin
- d) B.H.C.

Q-62. Which of the following is systemic poison ?

- a) Metasystox
- b) Phosphomidan
- c) *Phorate*
- d) All of these

Q-63. DDVP is known as

- a) *Nuvan*
- b) Malathion
- c) Thiodan
- d) Sulfex

Q-64. Seed treatment with Vitavax is the main controlling method of

- a) Loose smut
- b) Rust
- c) Downy mildew
- d) All of these**

Q-65. Covered smut of barley is a disease of

- a) Externally seed-borne
- b) Internally seed-borne**
- c) Air-borne
- d) None of these

Q-66. The period of 11th Five Year Plan is

- a) 2000-2005
- b) 2002-2007
- c) 2007-2012**
- d) 2008-2012

Q-67. Acid rain contains mainly

- a) PO₄
- b) NO₂**
- c) NO₃
- d) CH₄

Q-68. Which of the following cakes is not edible ?

- a) Castor cake**
- b) Mustard cake
- c) Sesame cake
- d) Groundnut cake

Q-69. In India, about 142 million hectare land is under

- a) Cultivation**
- b) Waste land
- c) Forest
- d) Eroded land

Q-70. The headquarters of Indian Meteorological Department was established in 1875 at

- a) New Delhi
- b) Hyderabad
- c) Pune
- d) Calcutta**

Q-71. Moisture condensed in small drops upon cool surface is called

- a) Hail
- b) Dew**
- c) Snow
- d) Fog

Q-72. How many agro-climatic zones (ACZ) are found in India ?

- a) 16
- b) 18
- c) 15**
- d) 20

Q-73. Tilt angle of a disc plough is generally

- a) 10°
- b) 15°
- c) 20°
- d) 45°**

Q-74. Pudding is done to

- a) Reduce percolation of water
- b) Pulverise and levelling soil
- c) Kill weeds
- d) All of the above**

Q-75. The Community Development Programme (CDP) was started in India on

- a) 2nd October, 1950
- b) 2nd October, 1952**
- c) 2nd October, 1951
- d) None of these

Q-76. The main unit of Integrated Rural Development Programme is

- a) Family
- b) Village**
- c) Block
- d) District

Q-77. Element of Communication is

- a) Message
- b) Feedback
- c) Channel
- d) All of these**

Q-78. The first Kshetriya Gramin Bank (KGB) was opened in India is

- a) 1972
- b) 1980
- c) 1975*
- d) 1969

Q-79. The main function of NABARD is

- a) Farmers' loaning
- b) Agricultural research
- c) Refinancing to agricultural financing institutions*
- d) Development of agriculture

Q-80. Rent theory of profit was given by

- a) Hawley
- b) C.P. Blacker
- c) Tanssig
- d) F.A. Walker*

Q-81. In L.D.R., the profit will be maximum when

- a) $MC = MP$
- b) $MC > MP$
- c) $MP = TP$
- d) $MP > TP$*

Q-82. Cell Organelle found only in plants are

- a) Mitochondria
- b) Golgi complex
- c) Ribosomes
- d) Plastids*

Q-83. Proteins are synthesized in

- a) Centrosomes
- b) Ribosomes*
- c) Mitochondria
- d) Golgi bodies

Q-84. Milk fever is caused due to the deficiency of

- a) P
- b) Ca*
- c) Mg
- d) K

Q-85. The most efficient use of potassium is achieved by—

- a) Broadcasting at the sowing time
- b) Top dressing after one month of sowing
- c) Basal placement at the sowing time*
- d) Foliar spray

Q-86. The term 'Extension' was first used in—

- a) U.K.
- b) U.S.A.*
- c) India
- d) France

Q-87. The first K.V.K. (Krishi Vigyan Kendra) in India was established in—

- a) Bombay
- b) Port Blair
- c) Pondicherry*
- d) Madras

Q-88. ATMA is related to—

- a) NARP
- b) NAARM
- c) NREP
- d) None of these*

Q-89. Albert Mayer is the name associated with—

- a) Nilokheri Development Project
- b) Firka Development Project
- c) Etawah Pilot Project*
- d) Shriniketan Project

Q-90. Co-operative Credit Societies Act was passed in India in—

- a) 1902
- b) 1904
- c) 1906
- d) 1912*

Q-91. Maximum photosynthesis takes place in—

- a) Blue light
- b) Red light
- c) Violet light
- d) Green light*

Q-92. Farm Planning means—

- a) Farm Budgetting
- b) Cropping pattern**
- c) Type of enterprises
- d) None of these

Q-93. The first product of photosynthesis in C3 plant is—

- a) Pyruvic acid
- b) Phospho-glyceric acid**
- c) Oxalo-acetic acid
- d) Succinic acid

Q-94. Bending of plants towards light is called—

- a) Phototropism**
- b) Vernalisation
- c) Photo-respiration
- d) None of these

Q-95. Germination is inhibited by—

- a) Red light
- b) Blue light
- c) U.V. light**
- d) I.R. light

Q-96. The best method of milking is—

- a) Knuckling method
- b) Fisting method
- c) Stripping method
- d) None of these**

Q-97. Line breeding is a type of—

- a) Inbreeding**
- b) Outbreeding
- c) Natural breeding
- d) None of these

Q-98. Match List-I with List-II and select answer from the codes given below—

List-I

- a) White Revolution
- b) Grey Revolution
- c) Blue Revolution
- d) Green Revolution

List-II

- 1. Fertilizer production
- 2. Fish production
- 3. Cereal production
- 4. Milk production

Codes :

- a) 4 1 2 3**
- b) 1 2 3 4
- c) 2 4 3 1
- d) 1 3 4 2

Q-99. 'Tharparkar' breed of cow is—

- a) Milch breed
- b) Working breed
- c) Dual purpose breed**
- d) None of these

Q-100. Cow and buffalo belong to the family—

- a) Bovidae**
- b) Suidae
- c) Equidae
- d) Cammelidae

Q-101. What is the contribution of Animal Husbandry Sector in the agricultural growth ?

- a) 10%
- b) 12% – 15%
- c) 7% – 9%**
- d) 5%

Q-102. How many labourers are required to run a 30 cows milch herd ?

- a) 8
- b) 6**
- c) 4
- d) 10

Q-103. What is the availability of per day per capita milk in India presently (2008-09) ?

- a) 229 gram
- b) 239 gram
- c) 219 gram
- d) 252 gram**

Q-104. Which place is occupied by India in egg production ?

- a) First
- b) Second
- c) Third
- d) Fourth

Q-105. How much calories (cal) may be obtained from 100 gram chicken egg ?

- a) 175 cal
- b) 180 cal
- c) 160 cal
- d) 130 cal

Q-106. Main function of biofertilizer is—

- a) To increase chemical process
- b) To increase physiological process
- c) To increase biological process
- d) To increase photosynthesis process

Q-107. How much tomato average production (q.) may be yield from one hectare ?

- a) 100
- b) 105-150
- c) 250
- d) 160-275

Q-108. Inland fisheries is referred to

- a) culturing fish in freshwater
- b) trapping and capturing fish
- c) deep sea fisheries
- d) extraction of oil from fish

Q-109. Which one is not biofertilizer ?

- a) Multiflex
- b) PSB
- c) Vermicompost
- d) NADEP

Q-110. In which form is nitrogen absorbed by paddy under waterlogged condition ?

- a) NH_4 ion
- b) Nitrate ion

- c) NO_2 ion
- d) N_2

Q-111. Which one of the following do not relate to groundnut ?

- a) Brazil
- b) $2n = 40$
- c) Pink disease
- d) Tikka disease

Q-112. Which of the following is produced highest in India ?

- a) Mango
- b) Banana
- c) Papaya
- d) Grapes

Q-113. The optimum temperature for the Banana crop is—

- a) 30°C
- b) 23°C
- c) 21.5°C
- d) 26.5°C

Q-114. Which one of the following varieties has been selected to develop Narendra Aonla-6 variety ?

- a) Chakaiya
- b) Hathijhool
- c) Banarasi
- d) Narendra Aonla-6

Q-115. The desired varieties of economically useful crops are raised by

- a) Vernalisation
- b) Mutation
- c) Natural selection
- d) Hybridization

Q-116. A farming system in which airable crops are grown in alleys formed by trees or shrubs, to establish soil fertility and to enhance soil productivity, is known as—

- a) Relay cropping
- b) Multiple cropping

- c) *Alley cropping*
- d) Mixed cropping

Q-117. The cropping intensity of Groundnut + Arhar – Sugarcane is—

- a) 200%
- b) 300%
- c) *150%*
- d) 250%

Q-118. The scented variety of paddy is—

- a) Jaya
- b) Bala
- c) *Type-3*
- d) Type-1

Q-119. From which language is the word 'Agronomy' taken ?

- a) Latin
- b) *Greek*
- c) French
- d) German

Q-120. Tarameera is belonged to which family ?

- a) *Cruciferae*
- b) Linaceae
- c) Compositae
- d) Graminae

Q-121. The size of clay particles are—

- a) 1•0 mm
- b) 0•2 – 0•02 mm
- c) < 0•02 mm
- d) *< 0•002 mm*

Q-122. When one plant has both male and female flowers separately, is called—

- a) Monophrodits
- b) Monoecious
- c) Hermaphrodite
- d) *Apomixis*

Q-123. Aamrapali is the cross of—

- a) Neelam x Dashaheri

b) Dashaheri x Langra

c) Langra x Dashaheri

d) *Dashaheri x Neelam*

Q-124. Seed-plot technique is adopted in—

- a) Onion
- b) *Potato*
- c) Sugarcane
- d) Tomato

Q-125. The origin of litchi is—

- a) India
- b) Philippines
- c) *China*
- d) Burma

Q-126. Milk sugar is a type of

- a) Glucose
- b) Sucrose
- c) *Lactose*
- d) Fructose

Q-127. Muriate of Potash is

- a) K₂SO₄
- b) *KCl*
- c) K₂HPO₄
- d) KNO₃

Q-128. Azotobacter fixes atmospheric nitrogen in the soil by

- a) *Symbiotically*
- b) Non-symbiotically
- c) Both a) and b)
- d) None of these

Q-129. The chemical formula of iron pyrites is

- a) FeSO₄
- b) FeS
- c) *FeS₂*
- d) Fe₂(SO₄)₃

Q-130. Intervenous chlorosis is caused due to the deficiency of

- a) N

- b) Mg
- c) S
- d) Fe

Q-131. Kinnow is the hybrid variety of

- a) Citrus
- b) Orange
- c) Mandarin
- d) Lemon

Q-132. The permanent preservative, which is used for preservation of fruit and vegetables, is

- a) Sodium chloride
- b) Potassium metabisulphate
- c) Potassium sulphate
- d) Sugar

Q-133. Whip tail disease of cauliflower is caused by deficiency of

- a) Nitrogen
- b) Boron
- c) Molybdenum
- d) Zinc

Q-134. The word 'Agriculture' is derived from

- a) Greek
- b) Latin
- c) Arabic
- d) French

Q-135. Motha (Grass nut) belongs to the family of

- a) Cruciferae
- b) Tiliaceae
- c) Cyperaceae
- d) Graminaceae

Q-136. Which of the followings are short day crops ?

- a) Maize, Lobia, Bajra
- b) Wheat, Mustard, Gram
- c) Moong, Soybean, Bajra
- d) Wheat, Soybean, Bajra

Q-137. What is the sequence of C4 plants ?

- a) Sudangrass – Sugarcane – Paddy – Bajra

- b) Sugarcane – Maize – Sudangrass – Bajra
- c) Sugarcane – Cotton – Paddy – Maize
- d) Cotton – Maize – Bajra – Sugarcane

Q-138. Match List-I (crops) with List-II (water requirement) and select your answer from the code given below—

List-I

- a) Jowar
- b) Soybean
- c) Cotton
- d) Groundnut

List-II

- 1. 140 mm – 300 mm
- 2. 350 mm – 450 mm
- 3. 200 mm – 300 mm
- 4. 300 mm – 350 mm

Codes :

- a) b) c) d)
- a) 3 1 2 4
- b) 4 2 3 1
- c) 1 4 2 3
- d) 3 1 4 2

Q-139. In which state, are there biggest area, highest production and number of Sugar Mills in relation to Sugarcane ?

- a) Maharashtra
- b) Bihar
- c) Uttar Pradesh
- d) Andhra Pradesh

Q-140. Which is not prepared by potato ?

- a) Acetic Acid
- b) Paper
- c) Wine
- d) Fanina

Q-141. Uttar Pradesh is occupying which place in India, for Guava production ?

- a) Second
- b) First

- c) Third
- d) Fifth

Q-142. Which of the following is TPS variety of Potato ?

- a) JH 222
- b) Chipsona-II
- c) Anand
- d) *HPS-1/113*

Q-143. What is VAM ?

- a) Virus
- b) Bacteria
- c) Algae
- d) *Fungi*

Q-144. What is the main function of zinc in the plants ?

- a) Synthesis of nitrogen
- b) Synthesis of phosphorus
- c) *Required for synthesis of Tryptophos*
- d) To increase activity of the boron

Q-145. What is the area in floriculture (in 000 hectare) in India ?

- a) 40 – 50
- b) 60 – 80
- c) *100 – 120*
- d) None of these

Q-146. Which of the following factors does not affect the nitrification ?

- a) Air
- b) *Seed*
- c) Temperature
- d) Moisture

Q-147. Which is the correct sequence of soil erosion ?

- a) Rill – Sheet – Gulley
- b) Gulley – Sheet – Rill
- c) *Sheet – Rill – Gulley*
- d) Sheet – Gulley – Rill

Q-148. Zinc Sulphate (ZnSO₄) should not be mixed with—

- a) *D.A.P.*

- b) Compost fertilizer
- c) Ammonium Chloride
- d) Urea

Q-149. Insecticides are specific inhibitors of—

- a) Excretory system
- b) Digestive system
- c) Nervous system
- d) *Blood Circulatory system*

Q-150. The credit for the success of Krishi Vigyan Kendras (KVK) goes to—

- a) Dr. R. S. Paroda
- b) Dr. Chandrika Prasad
- c) Dr. Mohan Singh Mehta
- d) *Dr. Mangla Rai*

Q-151. Cauliflower belongs to the family—

- a) *Cruciferae*
- b) poaceae
- c) Malvaceae
- d) Leguminaceae

Q-152. The trade name of phorate is—

- a) Temic
- b) Thiodan
- c) *Phorbox*
- d) Metasystox

Q-153. The sprayers are cleaned before use by—

- a) 1% chlorine water
- b) *1% hydrochloric acid*
- c) 1% ammonia water
- d) 1% bromine water

Q-154. The cyanogas pump is a /an—

- a) Duster
- b) Fumigator
- c) Sprayer
- d) *Emulsifier*

Q-155. The main reason of Irish Famine in Potato was—

- a) *Late Blight disease*
- b) Bacterial Blight disease

- c) Blast disease
- d) Ear Cockle disease

Q-156. The instrument, which is used for sowing of seed with fertilizer together at a time, is—

- a) Seed drill
- b) Dibbler
- c) Seed sowing behind plough
- d) Ferti-cum Seed drill**

Q-157. Seed treatment is done to control—

- a) Soil-borne disease
- b) Air-borne disease
- c) Seed-borne disease**
- d) None of these

Q-158. Salt tolerant crop is—

- a) Cowpea**
- b) Field pea
- c) Garlic
- d) Longmelon

Q-159. Which of the following is not a dairy breed of cattle ?

- a) Sahiwal
- b) Sindhi
- c) Nagore
- d) All these**

Q-160. Which of the following pesticides has been banned in India ?

- a) Rogor
- b) DDT**
- c) Metasystox
- d) Dimecron

Q-161. Pulses fit well in cropping system as they are—

- a) Short duration crops
- b) Disease resistant crops
- c) Long duration crops
- d) Moisture stress resistant crops**

Q-162. Wheat is a—

- a) Cash crop

b) Cereal crop

- c) Covered crop
- d) None of these

Q-163. Autumn sugarcane is planted in month of—

- a) February-March
- b) July
- c) October**
- d) December

Q-164. Seed-rate for timely sown wheat is—

- a) 75 kg/ha
- b) 100 kg/ha
- c) 125 kg/ha**
- d) 150 kg/ha

Q-165. Most critical stage in wheat for irrigation is—

- a) C.R.I.**
- b) Flowering
- c) Milk
- d) Dough

Q-166. Name of most popular variety of wheat in Uttar Pradesh is—

- a) PBW – 343
- b) U.P. – 2338**
- c) K – 7903
- d) K – 9107

Q-167. KPG – 59 (Udai) is a variety of—

- a) Field pea
- b) Vegetable pea
- c) Lentil
- d) Gram**

Q-168. In plain, Rajma is cultivated during—

- a) Kharif**
- b) Rabi
- c) Zaid
- d) None of these

Q-169. Which crop is recommended for Zaid season cultivation in Uttar Pradesh ?

- a) Vegetable pea

b) Groundnut

- c) Barley
- d) Lentil

Q-170. Which one among the following chemicals is used for causing defoliation of forest trees?

- a) Posphon D
- b) Malic hydrazide
- c) 2, 4-D*
- d) Amo 1618

Q-172. Norin-10 gene from Japan is a

- a) Dwarf gene of wheat*
- b) Dwarf gene of rice
- c) Dwarf gene of maize
- d) disease resistant gene of rice

Q-173. Bioherbicides have been recommended

- a) to prevent ecodegradation*
- b) Because of their ready availability
- c) Because of their cheap rates
- d) Because of their abundance

Q-174. The Mexican dwarf wheat variety was developed by

- a) Swami Nathan
- b) Borlaugh*
- c) Watson
- d) Khush

Q-175. High-yielding varieties of wheat were primarily developed by Indian scientist by crossing- breeding traditional varieties with

- a) American varieties
- b) Mexican varieties*
- c) European varieties
- d) African varieties

Q-176. A plant breeder: waists to develop a disease resistant variety. What should he do first?

- a) Hybridization
- b) Mutation

c) Selection

- d) Production of crop

Q-177. Which of the following is an example of kharif crop?

- a) Rice*
- b) Wheat
- c) Gram
- d) Mustard

Q-178. Removal of stamens in an inter-sexual flower before they dehisce is called

- a) Protogyny
- b) Protandry
- c) Inducing male sterility
- d) Emasculation.*

Q-179. Selection of homozygous plant is

- a) Pure line selection*
- b) Mass selection
- c) Mixed selection
- d) Introduction

Q-180. The study of fish culture is called

- a) Ophiology
- b) Ichthyology
- c) Herpetology ‘
- d) Pisciculture*

Q-181. Murrah is a high-yielding breed of

- a) cow
- b) hen
- c) buffalo*
- d) sheep

Q-182. Which of the following is called the “Father of White Revolution” in India?

- a) Hargobind Khorana
- b) V. Kurian*
- c) M.S. Swaminathan
- d) P. K. Sethi

Q-183. Foot and Mouth Disease is a highly contagious disease almost exclusive to cattle, sheep, swine, goats,

and other cloven-hoofed animals. It is caused by

- a) fungi
- b) bacteria
- c) protozoa
- d) *Erus*

Q-184. Anthrax is a serious disease of

- a) *cattle*
- b) poultry
- c) fish
- d) all of these

Q-185. High milk yielding varieties of cows are obtained by

- a) super ovulation
- b) artificial insemination
- c) use of surrogate mothers
- d) *all of these*

Q-186. Which of the following is the high milk yielding variety of cow?

- a) Jamunapari
- b) Murrah
- c) *Holstein*
- d) Kathiyabari

Q-187. A fan produces a feeling of comfort during hot weather because

- a) Fan supplies cold air
- b) *Our perspiration evaporates rapidly*
- c) Our body radiates more heat in air
- d) Conductivity of air increases

Q-188. The water can be made to boil even at 0°C if the pressure of surrounding is

- a) 76cm of Hg
- b) 5cm of Hg
- c) 0.1 cm of Hg
- d) *4.6 mm of Hg*

Q-189. First stable compound in C3 cycle is

- a) *Phosphoglyceraldehyde*
- b) Phosphoglyceric acid

- c) fructose -1-6 diphosphate
- d) Glucose -6-phosphate

Q-190. Compensation point is

- a) where there is neither photosynthesis nor respiration
- b) *when rate of photosynthesis is equal to the rate of respiration*
- c) when there is enough water just to meet the requirements of plant
- d) when the entire food synthesized in photosynthesis remain unutilized

Indian Agriculture – MCQs with answers – Part I (01-19-2015)

Indian Agriculture – MCQs with answers – Part I

Q-191. Which sector is the backbone of Indian economy?

- a) Service Sector
- b) Financial Sector
- c) Tourism Sector
- d) *Agriculture Sector*

Q-192. Which among the following is not a cereal?

- a) Rice
- b) Wheat
- c) *Gram*
- d) Maize

Q-193. Who announced the introduction of National Food Security Act?

- a) *Pranab Mukherjee*
- b) Manmohan Singh
- c) P.Chidambaram
- d) Arun Jaitley

Q-194. When was NFSM launched?

- a) Mid of 9th Five-Year Plan
- b) End of 10th Five-Year Plan
- c) Mid of 11th Five-Year Plan
- d) *End of 11th Five-Year Plan*

Q-195. Who announced the launch of Rashtriya Krishi Vikas Yojana?

- a) Narendra Modi
- b) Dr. Manmohan Singh**
- c) Atal Bihari Vajpayee
- d) I.K.Gujral

Q-196. Which among the following does not belong to welfare schemes for the farmers?

- a) Kisan Credit Card Scheme
- b) SHG Bank Linkage Programme
- c) National Agricultural Insurance Scheme
- d) Employee Referral Scheme**

Q-197 when did the Government present Kisan Credit Card Scheme?

- a) April 1853
- b) August 1998**
- c) July 1991
- d) November 1995

Q-198 When was On Farm Water Management Scheme launched?

- a) July 2000
- b) March 2002**
- c) March 2004
- d) January 2004

Q-199 When were Kisan Call Centres established?

- a) July 2000
- b) March 2002
- c) March 2004**
- d) January 2004

Q-200. Which of the following is the largest fertiliser producer in India?

- a) Coromande International Ltd.
- b) Indian Farmers Fertiliser Corporation Limited**
- c) Gujarat State Fertilizers & Chemicals Ltd.
- d) Rashtriya Chemicals & Fertilizers Ltd.

Q-201. Consider the following statements. Identify the right ones.

- I. Agriculture is a purely land based activity unlike secondary and tertiary activities.
- II. The lack of access to land is directly correlated with

incidence of poverty in rural areas.

- a) I only
- b) II only
- c) Both**
- d) None

Q-202. Consider the following statements. Identify the right ones.

I. There are three distinct crop seasons in the northern and interior parts of the country, namely kharif, rabi and zaid)

II. The kharif season largely coincides with Southwest Monsoon.

- a) I only
- b) II only
- c) Both**
- d) None

Q-203. Which of these are not rabi crop?

- a) Wheat
- b) Mustard
- c) Barley
- d) Cotton**

Q-204. Match the following crop seasons with respective months.

I. Kharif — A) October- March

II. Rabi — B) April-June

III. Zaid — C) June-September

- a) IA,IIB,IIC
- b) IB,IIC,IIIA
- c) IC,IIA,IIB**
- d) IC,IIB,IIIA

Q-205. Consider the following statements. Identify the right ones.

I. On the basis of main source of moisture for crops, the farming can be classified as irrigated and rain fed)

II. While irrigated farming is dependent on irrigation facilities but rain fed farming is done with the help of rainfall received during Southwest Monsoon.

- a) I only
- b) II only

c) Both

d) None

Q-206. Consider the following statements about dry land farming. Identify the right ones.

I. The dry land farming is largely confined to the regions having annual rainfall less than 75cm.

II. These regions grow hardy and drought resistant crops.

a) I only

b) II only

c) Both

d) None

Q-207. Consider the following statements about wetland farming. Identify the right ones.

I. In wet land farming, the rainfall is in excess of soil moisture requirement of plants during rainy season.

II. These areas grow various water intensive crops such as rice, jute and sugarcane.

a) I only

b) II only

c) Both

d) None

Q-208. Consider the following statements. Identify the right ones.

I. Food grains are dominant crops in all parts of the country.

II. Rice is a staple food for the overwhelming majority of population in India)

a) I only

b) II only

c) Both

d) None

Q-209. Consider the following statements. Identify the right ones.

I. Maize is a food as well as fodder crop grown under semi-arid climatic conditions.

II. Yield level of maize is higher than other coarse cereals.

a) I only

b) II only

c) Both

d) None

Q-210. Consider the following statements about the pulses. Identify the right ones.

I. Pulses are very important ingredient of vegetarian food as these are rich sources of proteins.

II. These are legume crops which increase the natural fertility of soils through nitrogen fixation.

a) I only

b) II only

c) Both

d) None

Q-211. Which of these are oilseeds growing regions of the country?

I. Maharashtra

II. Telangana

III. Andhra Pradesh

IV. Uttar Pradesh

a) I and III only

b) II and III only

c) I, II and III only

d) All

Q-212. Consider the following statements. Identify the right ones.

I. Cotton is a tropical crop grown in kharif season in semi-arid areas of the country.

II. India grows both short staple cotton as well as long staple cotton.

a) I only

b) II only

c) Both

d) None

Q-213. Consider the following statements about jute crop. Identify the right ones.

I. Jute is one of the fibre crops grown in India)

II. It is used for making coarse cloth, bags, sacks and decorative items.

III. It is grown in the states of West Bengal, Assam and

Bihar.

- a) I and II only
- b) II and III only
- c) I and III only

d) All

Q-214. Consider the following statements about the sugarcane crop. Identify the right ones.

- I. Sugarcane is a crop of tropical areas.
- II. Its cultivation is largely concentrated in Uttar Pradesh, Maharashtra and Gujarat.
- III. It is also cultivated in southern states where the yield of the crop is very high.

- a) I and II only
- b) II and III only
- c) I only

d) All

Q-215. Consider the following statements about tea crop. Identify the right ones.

- I. Tea is a plantation crop used as beverage.
- II. Tea leaves have rich content of caffeine and tannin.
- III. It is grown over undulating topography of hilly areas and well-drained soils in humid and sub-humid tropics and sub-tropics.

- a) I and II only
- b) II and III only
- c) I and III only

d) All

Q-216. Consider the following statements. Identify the right ones.

- I. Coffee is a tropical plantation crop.
- II. Its seeds are roasted, ground and are used for preparing a beverage.
- III. There are three varieties of coffee i.e. Arabica, Robusta, Liberia)
- IV. India mostly grows inferior quality coffee.

a) I, II and III only

- b) IV only
- c) III only
- d) All

Q-217. Consider the following statements about agricultural development in India) Identify the right ones.

- I. Indian agriculture economy was largely subsistence in nature before independence.
- II. It had a dismal performance in the first half of twentieth century.

- a) I only
- b) II only
- c) Both
- d) None

Q-218. Consider the following statements about Green Revolution in India) Identify the right ones.

- I. The Green Revolution was launched in the decade of 1960s to increase the agriculture production in India)
- II. It was a "package revolution" combining HYVs seeds, chemical fertilizer, pesticide, water and agriculture machinery.

III. It was an energy-intensive method)

- a) I and II only
- b) III only
- c) I, II and III only
- d) I only

Q-219. What were the harmful effects of the strategy of the Green Revolution?

- I. Degradation of the soil
- II. Lowering of the water tables
- III. Loss of Biodiversity
- IV. Impoverishment of the small farmers

- a) I, II and IV only
- b) III only
- c) I, II and III only

d) All

Q-220. What are the real problems of the Indian agriculture?

- I. Dependence on Erratic Monsoon
- II. Low productivity
- III. Constraints of financial resources and indebtedness
- IV. Lack of land reforms
- V. Small land size and fragmentation of landholdings

- a) I, II, III and IV only
- b) II and IV only
- c) III and V only
- d) All

Q-221. Which one of the following crops is not cultivated under dry land farming?

- a) Ragi
- b) Groundnut
- c) Jowar
- d) Sugarcane

Q-222. In which of the following group of countries of the world, HYVs of wheat and rice were developed?

- a) Japan and Australia
- b) Mexico and Philippines
- c) Mexico and Singapore
- d) USA and Japan

Q-223. Consider the following statements. Identify the right ones.

- I. Organic farming does not use chemical fertilizers and chemical pesticides.
 - II. Organic farming can, over a period of time, reverse soil degradation and improve soil health.
- a) I only
 - b) II only
 - c) Both
 - d) None

Q-224. Consider the following statements. Identify the right ones.

- I. Genetic engineering manipulates the genes in an organism to change its characteristics.
 - II. It can move a favourable gene from one organism to another.
 - III. Genetic modification can make a plant resistant to specific pests or diseases.
- a) I and II only
 - b) II and III only
 - c) I only
 - d) All

Q-225. Bt Cotton and Bt Brinjal are the examples of genetic ally modified crops. What does Bt stand for?

- a) *Bacillus Thuringiensis*
- b) Bacteria tera
- c) Ficus religiosa
- d) None

Q-226. Consider the following statements. Identify the right ones.

- I. Aquaculture is the artificial production of fish in ponds and underwater cages.
 - II. A third of the world's fish harvest is used as animal feed, fishmeal and oils.
- a) I only
 - b) II only
 - c) Both
 - d) None

Q-227. The global fisheries have nearly collapsed) What are the factors responsible for the decline in fisheries?

- I. Massive harvesting of fish
 - II. Pollution of water bodies
 - III. Climate change
 - IV. Destruction of mangroves and coral reefs
- a) I and II only
 - b) II and III only
 - c) III and IV only
 - d) All

ANSWER: d) All

Q-228. What is the way out to save global fisheries?

- I. Adopting an ecosystem based approach
 - II. Establishing marine reserves as no-fishing zones
 - III. Elimination of fishing gear and bottom trawlers
- a) I and II only
 - b) II and III only
 - c) I and III only
 - d) All

Q-229. Consider the following statements. Identify the right ones.

- I. A mineral is any substance that is naturally present in the earth's crust and is not formed from animal or

vegetable matter.

II. The earth's geological processes have formed these minerals over millions or billions of years and hence they are non-renewable.

- a) I only
- b) II only
- c) Both*
- d) None

Q-230. Consider the following statements. Identify the right ones.

I. Mining is the process of extracting and processing minerals.

II. Underground mining has little direct effect on the environment, but it can cause long-term problems like subsidence and pollution of aquifers.

- a) I only
- b) II only
- c) Both*
- d) None

Q-231. Which is the most important support for all plant growth and all life?

- a) Topsoil*
- b) Fertilizer
- c) Farming
- d) Pesticide

Q-232. Which of the following is not a problem associated with land?

- a) Water logging
- b) Salinization
- c) Desertification
- d) Climate Change*

Q-233. Which of the following statements is true with regard to food on this planet?

- a) There is unlimited amount of fish.
- b) There is enough food to feed every person.*
- c) Every person is able to buy food)
- d) Green Revolution has solved the problem of hunger.

Q-234. Which of the following statements is not true with regard to the Green Revolution?

- a) It increases crop yields.
- b) It needs fertilizers and pesticides.
- c) It requires decreasing inputs over time.*
- d) It uses high-yielding varieties of seeds.

Q-235. Which of the following statements is not true with regard to GM crops?

- a) They could have greater resistance to pests.
- b) They are proven to be completely safe.*
- c) They could resist drought or salinity.
- d) They could reduce the amount of fertilizer needed)

Q-236. Consider the following statements. Identify the right ones.

I. Soil pollution is any physical or chemical change in the soil conditions that may adversely affect the growth of plants and other organisms living in or on it.

II. Most soil pollutants are agricultural chemicals, primary fertilizers and pesticides.

- a) I only
- b) II only
- c) Both*
- d) None

Q-237. What are the ways for the restoration of the soil?

- I. Dilution
- II. Vapour extraction
- III. Bioremediation
- IV. Phytoremediation
- a) I and II only
- b) II, III and IV only
- c) I, II and III only
- d) All*

Q-238. Consider the following statements. Identify the right ones.

I. Irrigation has two roles to play: one is for protective purpose and another one for making the land useful for second crop.

II. In India, there are three basic sources of irrigation: wells, canals and tanks.

- a) I only

b) II only

c) Both

d) None

Q-239. What are the benefits of micro irrigation?

I. Most efficient method of irrigation

II. Increases crop productivity with less water usage

III. Saves electricity

IV. Enhances fertilizer use efficiency

V. Reduces the problems of water logging

a) I and II only

b) II and III only

c) I,II,III,IV only

d) All

Q-240. Consider the following statements. Identify the right ones.

I. Drip irrigation is an irrigation method that saves water and fertilizer by allowing water to drip slowly to the roots of the plants.

II. The efficiency of drip irrigation is 85%.

a) I only

b) II only

c) Both

d) None

Q-241. What are the problems related with irrigation?

I. Delay in the completion of major irrigation projects

II. Rising costs

III. Inadequacy of finance and organization

IV. Underutilization of existing capacity

a) I,II and III only

b) II,III and IV only

c) II and III only

d) All